

INFORMATION LETTER

Not for
Publication

NATIONAL CANNERS ASSOCIATION

For Members
Only

No. 573

Washington, D. C.

October 19, 1935

Meeting of the Administrative Council

The Administrative Council of the Association met at the Washington office on October 15th and 16th to consider reports on the Association's activities since the meeting of the Board of Directors last May, and to formulate plans for its work during the remainder of the year. Among the more important features of the meeting, which was attended by practically the entire membership of the Council, were:

Received reports of the finances of the Association showing a balance of about \$67,000 in the treasury as of October 1st; a net gain of 60 members since the annual convention; expenditures under the budget thus far this year which indicate that anticipated savings may be sufficient to take care of unusual expenses during the remainder of the year.

Completed arrangements by which pea canners will contribute to the cost of experimental work on pea aphid control to be conducted this winter in Texas by government entomologists.

Authorized the subcommittees on the labeling of corn and peas to meet at Washington about December 1st to grade the experimental packs of these products put up this summer, and to consider the analytical work on these products conducted by the research laboratory.

Approved plans to broaden the scope of the work of the Statistical Division to include various economic studies, and authorized the appointment of a Committee on Statistics and Information to have supervision and direction of this work.

Approved the development of a system or systems of classified accounts that can be used especially by canners not now having adequate cost accounting systems, and the presentation of these systems at the various section meetings to be held during the annual convention.

Approved plans for the collection of new labels developed by canners during the past year, these labels to be arranged as an exhibit at the annual convention for the assistance of canners contemplating or planning changes in their labels to make them more informative.

The meeting opened with the presentation of reports by members of the Association's staff on the activities and plans of their division of the Association's work. These reports appear elsewhere in condensed form, but they will give the membership a good general idea of the broad scope of the Association's continuing activities.

ADDRESS BY ASSOCIATION'S GENERAL COUNSEL

Judge J. Harry Covington, general counsel for the Association, addressed the meeting at its first day's session, outlining certain long-range problems confronting the canning industry in its relation to the Federal Government. In concluding his talk, Judge Covington called to the attention of the Council the fact that—

"The forces of government do not move as does a pendulum. It is rare indeed in the history of the world that there has been a complete return, even by a great political convulsion, to the state of public affairs which existed in a country previous to a social revolution abandoned by the people because it moved too rapidly and went too far. Some part of the economic, social and governmental change has always remained in the country's institutions. In the approach of American industry to its present-day difficulties, the problem upon which its genius, judgment, and energy must focus is the determination of the degree of governmental activity in our economic affairs which is wise and necessary alike for the social welfare of our whole people, and the preservation under democratic institutions of that right of private enterprise which stimulates the spirit of self-reliance and assures gain to the industrious and thrifty."

N. R. A. AND TRADE PRACTICE AGREEMENTS

The reorganization of the National Recovery Administration and its present set-up and activities were reviewed by a member of the staff, with special reference to the work of the Consumers' Division and the development of voluntary trade agreements under the National Recovery Administration. This review brought together the facts that have been reported from time to time in the INFORMATION LETTER.

The subject of voluntary trade agreements under the National Recovery Administration and of trade practice conferences under the Federal Trade Commission Procedure was likewise discussed. As has been reported in the INFORMATION LETTER, the President has delegated to the Federal Trade Commission the authority vested in him to approve voluntary trade agreements permitted under the resolution extending the National Industrial Recovery Act but with the stipulation that approval cannot be given by the Commission unless such agreements contain provisions as to maximum hours, minimum wages and prohibition of child labor. Should trade industries not desire to submit labor provisions in an agreement, they can proceed under the trade practice conference methods of the Federal Trade Commission. Thus, trade practice agreements are possible either under the N. I. R. A. or under the plan heretofore operated by the Federal Trade Commission. The difference lies largely in the fact that agreements under the N. I. R. A. must contain labor provisions.

There was also some discussion of the invitation extended by the Coordinator for Industrial Cooperation to industrial and labor leaders to participate in a round table conference on the advisability of developing a permanent organization to maintain business and labor standards, etc.

BROADENING OF ECONOMIC RESEARCH WORK

Enlargement of the work of the Statistical Division to include economic research to develop the basic facts in the relation of the canner and the grower and his crops was the subject of considerable discussion, with the result that such work will be undertaken under the direction of a new committee on statistics and information, members of which President Orr was authorized to appoint. He has named to this committee the following members: Ralph O. Dulany, Fruitland, Md.; W. A. Miskimen, Indianapolis, Ind.; A. F. Schroder, Winneconne, Wis.; Walter Graefe, Griffin, Ga.; Preston McKinney, San Francisco, Calif.; Karl K. Mayer, Brighton, Colo.; B. E. Maling, Hillsboro, Ore.; H. E. MacConaughy, San Francisco, Calif.; one other member, to be named, representing New York State and New England.

PENDING LEGISLATION AND RESETTLEMENT ADMINISTRATION ACTIVITIES

Pending legislation that will come before the session of Congress convening in January was reviewed, including the Copeland Bill, Walsh Bill, Patman Bill, Huddleson Bills, Alaska Fisheries Control Bills, and others, the general provisions and status of which have been reported in the INFORMATION LETTER.

There was also an explanation of the set-up and plans of the Resettlement Administration, with special reference to the extent to which projects of the Rural Resettlement Division contemplate the establishment of community cooperative canneries, products of which will enter into competition with those of privately owned commercial plants.

COST ACCOUNTING

Following a statement regarding the cost accounting work which had been initiated by the Canning Code Authority, and the advantages to the industry of following this work up so that canners now lacking cost accounting systems would adopt cost accounting and be able to market their products with definite knowledge as to their cost, it was agreed that the Statistical Division should work out plans for presentation at the convention. These plans look forward, not to uniform costs, but to uniform methods of defining and classifying items of cost, which would be of material aid to members of the industry and the industry as a whole when called upon to furnish data on costs.

EXPERIMENTAL WORK ON PEA APHIS CONTROL

Following the report of the Raw Products Bureau on the subject of pea aphid and the possibility of having experimental control work conducted, the following committee on pea aphid research was appointed: Howard A. Orr, Chairman; E. B. Cosgrove, A. F. Schroder, E. S. Thorne, H. L. Cannon, W. P. Hartman.

After reviewing results obtained by the Bureau of Entomology in control of pea aphid with a derris spray in Wisconsin in 1935, the committee was convinced that this work should be repeated on a larger scale in Texas during the coming fall and winter, especially since companies operating in that territory have offered cooperation and local facilities for carrying on the necessary experiments.

A conference with representatives of the Bureau of Entomology showed that they were in full sympathy with the undertaking but that funds for the necessary expenses are not available. Estimates indicate that approximately \$1,500 may be required. The committee therefore assumed responsibility for raising this amount from pea canners, the fund to be set up as a trust fund under a memorandum of understanding with the Secretary of Agriculture so that as much of it as may be found necessary may be expended under government regulations in financing the proposed additional experiments in Texas during the next few months.

The committee is asking representative pea canners in states not included in the committee's membership to raise the quota for their respective states. Each member of the committee agreed to assume the responsibility for taking up the matter with pea canners in his own state in order that each state's proportionate share of the total might be collected and placed in the hands of the chairman of the committee at an early date.

Reports to Administrative Council on Association Work**Consumer Complaint Service**

Since the meeting of the Administrative Council last May there have been no developments of an unusual nature in connection with consumer complaints, but the demand upon the Association for its service in handling complaints continues to be very heavy and that department of the Association work now requires, in addition to the director, a scientific and a legal assistant and a clerical staff of four persons. This is in addition to the service given by the Washington research laboratory in examining exhibits and in giving expert advice and testimony, when needed. The San Francisco and Seattle offices of the Association also are giving excellent cooperation in handling complaints in the Far West.

During the first nine months of the current year 1,417 new complaints have been referred to the Association, as compared with 1,014 and 726 for the corresponding periods in 1934 and 1933, respectively. In other words there has been nearly a 100 per cent increase in complaints in two years. A large proportion of the claims are entirely unjustified or greatly exaggerated. We are glad to report, however, that due to a falling off during the past summer, the total number of cases this year will probably fall considerably short of the 2,100 estimate submitted last May.

Of the 1,417 cases this year, 542 were reported from New York City. There are 407 suits now pending which the Association is handling, 235 of which are in New York City.

The following table shows the disposition of consumer complaints reported during the period January 1, 1932, to October 1, 1935. The figures for all items, except total cases, are approximate, as they include some cases carried over from previous years.

	1932	1933	1934	1935 (to Oct. 1.)
Total cases investigated.....	754	908	1,374	1,417
Number tried in court.....	4	19	36	27
Verdict for defense.....	3	13	27	17
Judgment for plaintiff.....	1	6	9	10
Dismissed.....	4	12	31	26
Suits pending Oct. 1, 1935.....				438

The number of suits pending, as above stated, includes 31 suits being defended by other than the National Canners Association.

Following is a four-year summary of the complaints and cases:

Total complaints.....	4,513
Percentage of complaints on which some action has been taken by claimant.....	29.7%
Percentage apparently dropped or abandoned.....	70.3%
Percentage of claims settled.....	16.5%
Suits pending.....	9.7%
Percentage of claims tried in court.....	1.9%
Percentage of court cases resulting in verdict for plaintiff..	30%
Percentage of court cases resulting in verdict for defendant	70%
Suits dismissed.....	1.6%

The suggestion made in May as to the desirability of cooperation with other organizations in fighting this form of racket, has been carried out to the extent of taking out membership in the Central Index Bureau, New York City. Through this Bureau information is exchanged between insurance companies, public service companies and other organizations, for the purpose of detecting "repeaters" and other persons who are making a business of damage claims of questionable character.

From the 353 replies received to a questionnaire sent out to all members last June, it appears that 38, or about 10 per cent, are carrying

product liability insurance, which is distributed among twenty different insurance companies.

A year ago Mr. David Stanley, Jr., joined the staff of this department as a scientific assistant and on June 15th, Mr. Forrest Heaton accepted a position in our office as assistant, particularly in connection with the legal phases of our work. The clerical staff of the department has been increased to four.

No payments have been made or authorized by the Trustees from the Special Protective Fund since the last meeting of the Council.

A grant of \$2,000 to Chicago University was authorized by the Administrative Council this year for the continuation of Dr. Jordan's research work on forms of illness due to food infection. Dr. Jordan has sent a brief report of recent progress along lines which should furnish practical information that will be helpful in defense against unjust claims of food poisoning, particularly when canned foods are involved. It has been suggested to Dr. Jordan that his work be continued along the lines he has started, particularly to determine definitely the relation of time and temperature to the destruction of toxins of food-poisoning bacteria and the influence of pH, that is, acidity, on their destruction. Dr. Jordan said that he fully agreed with our suggestions and appreciated the opportunity for conference on this work.

Research Laboratories

THE BLANCHING OF PEAS

An automatic line was equipped for continuing the experimental blanching procedure that was discussed in the annual report of the Laboratory for 1934. This procedure consists of filling the raw peas into the cans, adding either hot or cold water, and passing the cans through an exhaust box. From the exhaust box, the cans pass through a tipping machine to remove the water and then on to the briner, where hot brine is added, after which the cans are sealed and processed as usual. This procedure appears to have a cleansing effect in removing foreign matter adhering to the peas, such as vine juice and weed juice, and also in removing bacteria that might otherwise cause spoilage in the product.

With this procedure peas are not handled after blanching, and they are therefore believed to be broken up to a less extent than in the ordinary system of blanching.

While the procedure tried this summer may not be the best to accomplish the purpose, it served to illustrate a principle which it may be found advisable to adopt.

The laboratory examination of the samples from these experimental packs will give information regarding the procedure as compared

with the ordinary method of blanching, and also regarding the extent to which the soluble constituents of peas are removed in blanching.

TOUGHENING OF PEAS

It has long been realized that the hardness or toughness of canned peas is due to a considerable extent to the length of time the raw peas are held in lug boxes after the vining operation. On the other hand the Laboratory has pointed out that hand-shelled peas held for the same time under the same conditions as viner-shelled peas do not show this toughening effect, when both lots are either cooked in the kitchen or are canned. In studies made during the last season it was found that when peas are held in the lug boxes after vining for a period of 8 hours, their calcium content increased about 15 per cent. This increase of calcium appears to come from the juice of the leaves and vines that always cover viner-shelled peas. If this observation is confirmed by further work, it would seem appropriate to study the advisability of washing peas as they emerge from the viner in order to remove the vine juice.

BRINE SEPARATION OF PEAS

Many canners have found that the brine separation of raw peas was not practicable. In view of the fact that raw peas contain more or less air, a study was made during the last pea season of vacuumizing raw peas to remove the occluded air as far as possible and subjecting the vacuumized peas to brine separation. The analytical results of this work are not yet available.

VITAMIN STUDIES

The Laboratory has already reported a series of studies in which a comparison of canned, raw, and home cooked market foods resulted in a higher degree of calcification in young animals from canned foods. During the last few months these results have been confirmed by a somewhat different procedure.

In a sense the study of the degree of calcification is also a study of vitamin D since the only means of determining the presence of vitamin D is to study the calcification of experimental animals. Our work has developed substantial evidence of the existence of vitamin D in ordinary foods, contrary to the belief of some workers in that field and to statements which have been published from time to time. Within the last few weeks the Laboratory has contributed an article to a scientific journal correcting misstatements along these lines recently made in that journal.

Even before the discovery of vitamin D great emphasis was placed on the calcium in the diet, and while this was somewhat overshadowed

by the interest in vitamins, a renewed interest in dietary calcium has developed recently. Many analyses have been made of a large number of foods for the purpose of securing light on the factors that effect calcium availability. The leafy vegetables are especially marked by their richness in calcium, and the work on this subject reported to the last meeting of the Administrative Council has been continued and is now nearing completion.

Although there are many edible leafy vegetables, few of them are canned to any considerable extent, although the Laboratory has had inquiries from time to time regarding the canning of others. Colonel C. B. Sayre, of the Geneva, N. Y., Experiment Station, became interested in this aspect of the problem and volunteered to grow a number of leafy vegetables for experimental canning. Five of these have already been canned in experimental packs, and additional ones will be canned as they develop.

It has been said of our vitamin C studies that the canned product was served cold and that if they were heated as is customary for human consumption, there might be a greater destruction of vitamin C than our work would indicate. We have therefore studied this question during the last few months. Preliminary results with peas, asparagus, and tomatoes indicate that a freshly opened can of those products may be heated to boiling and boiled for a few minutes without noticeable destruction of vitamin C.

BACTERIOLOGICAL FIELD INVESTIGATIONS

The bacteriological field work has been continued during the present year for the purpose of studying the spoilage hazards which attend canning operations. During the corn pack the new truck laboratory was in constant operation and was supplemented by the emergency field laboratory, which has been used for the past three years. The immediate problems related to the prevention of spoilage in plants in which spoilage had previously occurred, but the field laboratory concerned itself also with consideration of matters which would otherwise have been submitted to the Washington laboratory. This resulted in a material saving of time. Further than this, visits were made to member canners in districts adjacent to the points where the field laboratory was located and canners' problems were discussed.

The field laboratory is now in Indiana continuing the work on bacteriological problems pertaining to the packing of pumpkin. It is expected to continue work in that state until the pack is completed.

The remainder of the year will be occupied with the examination of experimental packs now under incubation, the writing of reports and papers for publication, and a continuation of research which was temporarily suspended during the period of seasonal activity.

WORK FOR THE LABELING COMMITTEE

At the time of the meeting of the Board in May examination of the considerable number of samples of peas and corn collected for the Labeling Committee had been completed and the results reported to the Committee. A series of experimental packs had also been planned at the request of the Committee, for the purpose of obtaining samples of peas and corn of different varieties at various stages of maturity, and representing as far as possible the leading canning localities of those products. These packs have been completed and include experimental packs of peas in eleven states and of corn in six states.

Two members of the laboratory staff were occupied continuously with this work for more than three months of the canning season, and they also received substantial collaboration from the Food and Drug Administration, from the laboratories of the American Can Company and the Continental Can Company, and the laboratories of two member canners at whose plants experimental packs were put up. Without this collaboration it would not have been possible for the laboratory staff to put up the experimental packs during the season.

The collaboration of the various agencies mentioned above was so generous and helpful that it may be inappropriate to make any distinction among them, but special mention should be made of the collaboration of the Food and Drug Administration. Two experienced employees of that organization cooperated in this work from the beginning to the end of the season, and two others gave substantial assistance during a portion of the season.

In spite of the splendid collaboration of the agencies previously mentioned, the sudden changes of conditions during the summer and the number of the canning plants in which it was desired to work and which were in operation on their own packs at the same time, made it impossible to secure all of the packs that had been planned. It is felt, however, that the packs secured are fairly representative of the country as a whole and of the chief varieties of corn and peas packed.

On the whole, 296 samples of peas have been secured, including 143 samples of Alaska peas and 153 samples of eight varieties of sweet peas. One hundred and six samples of corn have been secured, including 36 samples of cream style corn, 55 samples of whole grain corn in brine, and 15 samples of vacuum pack whole grain corn.

The analytical work on these samples was begun as soon as the preparation of the experimental packs had been completed and is progressing rapidly. It is expected that the analytical work will be completed and the results tabulated before December 1st.

SERVICE TO MEMBERS

For several reasons the amount of laboratory service requested by members and rendered to them during the four months that have elapsed since the meeting of the Board of Directors in the latter part of May has been unusually large. The number of samples examined in the laboratory connected with this work (many of them being made up of a considerable number of sub-samples) was 300, as compared with 210 during the same period in 1934, an increase of 43 per cent.

During the early part of the year an item was carried in the INFORMATION LETTER calling attention to the fact that some deliveries of "guaranteed" sugar to our members had been examined in the laboratory and found to be below the bacteriological standards announced by the Laboratory. Probably as a result of this announcement, at least in part, the members of the Association have sent an unusually large number of sugar samples (representing deliveries made to them) to the Laboratory for examination. More than 500 separate examinations of sugar have been made during the year 1935 to date.

It has been amply demonstrated that sugar conforming to the N. C. A. standard can be produced by the sugar industry as a whole. Unremitting care is necessary for the manufacture of such sugar, however, and during the present year sugar unsuitable for canning non-acid products has been shipped as "guaranteed" sugar to member canners by four cane sugar producers and three beet sugar producers, most of whom had previously demonstrated their ability to manufacture sugar of satisfactory bacteriological quality. This experience led to the rejection of several shipments, and it is noteworthy that replacements were usually made by the same manufacturer with sugar which conformed to standard.

Under these circumstances it seems advisable for laboratories connected with the canning industry to continue to check the condition of sugar deliveries made to canners of non-acid products.

There has also been a considerable increase in the work done with tomato products during the period covered by this report. An unusually large number of samples has been received by the laboratory representing seizures of tomato products because of excessive mold count. The question of insect infestation of tomato products has also arisen, resulting in the development of a new method to detect such infestation by the Food and Drug Administration and the seizure of shipments of those products.

During the period covered by this report there has also been a material increase in the number of samples of foods packed by member canners sent to the laboratory for a food analysis in order to obtain the information required by the Committee on Foods of the American

Medical Association, and also required by certain distributors who state the composition of their products on their labels.

In addition to the work referred to above, various special service problems required the time of the laboratory—especially of the members of the bacteriological staff. Some unusual cases of spoilage have arisen requiring special examination, and experimental packs have been prepared for member canners, usually for the purpose of arriving at a process recommendation, and in one instance with the hope of improving the quality of the product studied.

WESTERN BRANCH LABORATORY

Two major projects have received the continuous attention of the Western Branch Laboratory since the meeting of the Board in May. These are (1) examination of the experimental pack of spinach put up during the spring canning season, and (2) a study of the elimination of insect infestation in the packing of tomato products.

The results obtained from the spinach pack amply justify the changes that were made in the California state regulations during the past season. These changes were: (1) the reduction of the maximum drained weight to 60 ounces; (2) establishing a minimum net weight of 100 ounces; (3) an increase in the process time to 60 minutes, and (4) the injection of steam into the spinach before brining.

The tomato problem has occupied the full time of the laboratory during the tomato-canning season, and has included a systematic study of the question by members of the staff, and the training of a considerable number of analysts employed by our members in the examination of tomato products.

Raw Products Bureau

The raw products research service, interrupted to a considerable degree during much of the past two years and necessarily subordinated to immediate emergency problems, is now being restored to its former status. The bureau is planning to renew personal contacts with canners and agricultural workers. This will be done in part through attendance the coming winter at canners meetings, scientific meetings and schools for canners' field men.

During the next crop season it is intended to renew the study of crop production problems in the field, to visit experiment stations in canning states and confer with their staffs on canning crops projects and to check up so far as possible on plant breeding and variety improvement work being carried on by seedsmen.

Late in 1932 a comprehensive report to the Research Committee summarizing canning crops research then in progress was prepared

and presented at the January 1933 meeting. There is now in course of preparation a report on state and federal publications, issued since that time, that bear on canning crops. It is recommended that this be published in printed form.

Although, as stated, the raw products service has been subordinated for a time because of emergency conditions, the bureau has kept in touch with its own field of work so far as possible. Recent developments of special interest are here summarized.

PEA APHIS

Losses from pea aphid experienced by canners and growers in Wisconsin, New York and other pea canning states in 1935 and preceding years have emphasized the desirability of more extensive research work to develop practicable control methods.

As a step in this direction the Raw Products Bureau was requested to arrange for an informal conference of federal entomologists and those of the New York Agricultural Experiment Station in order that available information might be brought together and consideration given to the feasibility of a broader program of research and a more vigorous effort to solve the problem. This conference was held at Geneva on September 19th.

The information presented brought out the merits and the limitations of dusting with nicotine preparations. These limitations are such that most entomologists have been reluctant to make clear-cut and definite recommendations for the general adoption of the method. Many canners, however, have made considerable investments in equipment and have dusted with nicotine preparations with varying degrees of success. Where the limitations have been understood, and where weather conditions at the time of infestation have permitted efficient operation, a number of cases of successful control have been reported. In many cases, on the other hand, dusting has been carried on when conditions necessary for success have not been present and such effort of course has been largely wasted.

A statement on the present status of dusting, its limitations and the conditions under which it may be warranted is now being prepared by the Bureau of Entomology. This should be of great value to canners who may be interested in dusting for aphid next season.

Of outstanding interest at the Geneva conference was the report from federal entomologists on aphid control by the use of derris in water, applied as a spray. This material not only destroyed aphid on peas but the sprayed plots remained green and uninfested, whereas surrounding untreated peas succumbed to aphid attack. The results ob-

tained in 1935 were on a very small scale, but seem to be highly significant and promising.

It is therefore highly important that further tests of this material in both spray and dust form be made as promptly as possible. Cannerymen having winter pea crops in Texas have offered local cooperation in carrying on further research on aphid control and have consented to the use of experimental plots on their acreage for this purpose. The Bureau of Entomology is sympathetic to the plan but lacks the funds necessary to finance the work. The cash outlay estimated as possibly required to finance this work is placed at about \$1,500. If cannerymen underwrite or contribute the necessary direct costs of the Texas work there is practically no doubt that the work will be undertaken.

At the Geneva conference consideration was also given to the desirability of enlarging the scope of pea aphid control work for 1936 and subsequent years. The federal project has its headquarters at Madison, Wisconsin. Conditions of crop production and aphid infestation in Wisconsin are not always representative of conditions in New York and other parts of the East. They are not at all representative of conditions in the rapidly developing pea canning regions of the Northwest, where aphid is also a production hazard of great importance. Under the present limited set-up if promising results are secured in Wisconsin the federal entomologists are unable to test the methods elsewhere. Such testing must be left to the states, which may or may not be able to act promptly. Even if the various states where the pea crop is important are prepared to follow up locally any promising leads developed by the federal project, such as the use of derris, there is certain to be a lag of from one to three years before local recommendations can be developed. At the Geneva conference therefore the thought was developed that the federal project should be expanded and branch laboratories set up for seasonal work in several other regions where pea canning is important, so that research work may be carried on simultaneously in each region and results of importance applied immediately instead of after a lapse of years.

Such an expansion of the federal pea aphid project involves additional funds. If there are no funds already controlled by the Secretary of Agriculture that might be made available for such an expansion of the project, an additional appropriation from Congress would appear the only alternative.

SWEET CORN BREEDING

In the spring of 1932 the two inbred lines Purdue 1339 and Purdue 1351 were released to the trade. These inbreds combined in a single cross hybrid produce Golden Cross Bantam. The resistance of this hybrid to bacterial wilt, its adaptation to a wide geographical range, its

uniformity, its high yield in comparison to open pollinated varieties of early yellow sweet corn, and its high quality have resulted in the wide popularity for canning that the variety has attained since its introduction.

These inbred lines of sweet corn resulted from several years of research work carried on cooperatively by the U. S. Department of Agriculture and the Purdue Experiment Station. The methods of releasing the inbreds to the trade and the regulations governing their production were worked out at a conference of representatives of the Department of Agriculture, Purdue Experiment Station, canners, and seedsmen arranged by the Raw Products Bureau and held during the convention in January, 1932.

In June, 1934, there was a government sponsored conference on bacterial wilt of sweet corn on Long Island where experimental work on the disease was in progress. One plot contained Golden Cross Bantam, seed of which came from several different sources. There were distinct differences in some of these lots of Golden Cross Bantam. If the inbred parent lines had been kept pure, with no crossing, they should when combined in the hybrid produce Golden Cross Bantam true to the type as originated.

The apparent divergence in type of Golden Cross Bantam in the hands of different producers in the third season after its release suggested the desirability of setting up some safeguard to the integrity of the inbred parent lines entering into the production of the hybrid. As a step toward this the suggestion was made that the Department of Agriculture, as the originator, collect, grow and compare at one place the two inbreds and the hybrid from as many different trade sources as might be willing to cooperate in supplying seed.

This suggestion was followed and trial plots of Purdue 1351, Purdue 1339 and Golden Cross Bantam from 23 seed sources were grown at Lafayette, Indiana, in 1935. Inspection of these at the end of the growing season showed the presence of some decidedly "off" types, with differences among other strains varying in different degree from the type as introduced and as perpetuated by the originator.

Recommendation has been made that an exhibit be made at the convention showing these variations so that seedsmen may be assisted to keep their inbred strains pure and so that canners may see for themselves that not all lots of Golden Cross Bantam are identical and thus be led to go "behind the scenes" in negotiating for supplies of hybrid seed.

TOMATO FRUIT WORM

The serious damage caused by tomato fruit worm in 1934 has emphasized to canners and to growers the importance of this pest as a hazard to the tomato canning industry.

Tomato fruit worm is the same insect which on corn is known generally as corn ear worm. In the cotton growing regions in the south the insect is known as cotton boll worm.

Because of its wide geographical distribution and the number of important crops on which it feeds, this insect is rated as one of the most destructive in the United States. A carefully compiled estimate of damage to field corn, sweet corn, cotton and tomatoes published by the Bureau of Entomology in 1930 indicates an aggregate crop loss of \$103,660,000.

Its range is not confined to the United States since it occurs from southern Canada through Mexico and the West Indies to Argentina. It is also found throughout Africa and Europe and eastward to China, India and Australia.

In most parts of the United States and in Canada the tomato fruit worm hibernates in the soil in the pupal stage. In southern Florida some moths remain active throughout the winter. The severe infestations on tomatoes and sweet corn in the central and northern states may arise both from local emergence of moths and from flight of moths from the south.

Records compiled by the Insect Pest Survey of the Bureau of Entomology show that in the ten-year period 1926-1935, the corn ear worm or tomato fruit worm has been consistently abundant in some sections while in others the intensity of the infestation has varied widely during the period. On corn and tomatoes the severity of the infestation in general increases progressively toward the south.

According to the U. S. Bureau of Entomology there is no entirely satisfactory method for the control of tomato fruit worm by insecticides. The Bureau states that dusting with equal parts of calcium arsenate and hydrated lime will prevent damage to a considerable extent. Treatment should begin early in the season and the dust applied directly to the terminal shoots and to the blossom stalks as it is on these parts of the plants that the newly hatched worms feed. Experiments have shown that treated plots yield about 50 per cent more undamaged tomatoes than untreated plots. Treatments should cease when the fruits are about half grown.

TOMATO PIN WORM

Injury by this insect has been causing increasing concern for several years past, especially in southern California.

There are three types of injury, that caused by the feeding of the larva as a leaf miner, as a leaf roller and as a fruit and stem borer.

"The most serious injury is caused by the larvae boring into the stem end of the fruit, making several small holes called 'pin-holes',

hence the name 'pin-worm.' Fruit so injured rots, or is so damaged as to necessitate its being placed in the 'cull' grade. The larvae usually enter the fruit beneath the calyx and stem, although they may bore into the fruit at almost any point. They may burrow some distance into the septa or walls inside the tomato plant, although the greater portion feed within a quarter-inch or so of the surface. The calyx type of injury may not often be detected, except by close examinations, until the stem is removed, but bits of frass may often be seen protruding from beneath the calyx lobes. The holes made by the larvae are usually covered by a light web. Infestations usually begin while the fruit is still green, and the larvae mature with the developing fruit. Fruit which appears sound may actually be infested and break down in shipment."

Reports of entomologists show that the insect has caused serious injury to tomatoes in southern California and on the West Coast of Mexico for a period of at least ten years.

As a pest of greenhouse tomatoes pin worm was first reported near Coatesville, Pennsylvania, in 1931. It has since occurred in several greenhouses in the Kennett Square area and in one greenhouse in Wilmington, Delaware, causing losses in several instances of the entire crop. Greenhouse infestation at Norfolk, Virginia, and at Long Beach, Mississippi, and Gulfport, Mississippi, was reported in 1933 and 1934. At Gulfport the insect also infested outdoor tomatoes in a nearby field.

Tomato pin worm may be spread by shipment of infested tomatoes both green and ripe and by movement of infested seedling plants from one locality to another. Flight of the moths is probably of minor importance as a means of dissemination.

Although the tomato is the principal host plant, pin worm has been found on several other species of *Solanum* including horsenettle, nightshade and eggplant.

No very satisfactory control measures have as yet been perfected. Fluorine compounds, derris and some oil sprays are promising on the basis of experimental work now being carried on.

Observations by government entomologists in California show "that growers gather the tomato plants from old infested fields and pile them on waste land nearby. The worms complete their development in such piles and the moths later emerge. Infested fruit which is culled and left in small piles at the edge of the field also serves as an aid to pin worm propagation. In frostless areas old tomato fields are often left standing during the winter and until the early spring fields are planted with the new crop. This offers an excellent means of carryover. Plowing and disking such fields, without removing the old crop remnants, should be of value in control, but growers are convinced that diseases are less prevalent if the plants are removed before plowing. For this reason the destruction of the old crop remnants after removal from the fields,

preferably by burning, would seem to offer an effective means of disposing of this menace. Also the removal and destruction of horsenettle would be of aid in reducing the chances for carryover."

FEDERAL-STATE GRADING OF RAW PRODUCTS

Buying of raw products on a graded basis has for many years been a common practice in the canning industry. In 1931, at the request of the Administrative Council, the Raw Products Bureau prepared a comprehensive report on the various methods of buying on grade in use with different commodities and in different parts of the country.

The use of grades developed by the U. S. Department of Agriculture began in Maryland in 1926, after the announcement of grades for cannery tomatoes that year. Since then the practice has spread to a dozen other states and U. S. grades have been worked out for other cannery raw products. These now include tomatoes, spinach, cabbage for kraut, sweet corn, red sour cherries, apples for canning, and strawberries for manufacture.

In most states grading has been increased from year to year. Exceptions where grading has been tried and has afterward either decreased in volume or been abandoned are Delaware, Iowa and Virginia.

Far more tonnage of tomatoes has been graded under the federal-state system than of all other products combined. In 1934 tomatoes bought on grade aggregated 394,162 tons, equivalent to 28 per cent of the total tonnage of tomatoes for manufacture. Figures on tonnage graded during the current season are not yet available but will probably show a substantial increase over last year.

In the five states of Colorado, Indiana, Maine, New Jersey and Ohio, for which figures are available, there were employed in 1935 189 inspectors carrying on inspection at 136 points. This compares with 128 inspectors carrying on inspection at 91 points in 1934.

The grading is done by inspectors or graders licensed by both federal and state agencies. They are trained and supervised by federal supervisors. They are paid by the state agency principally from funds contributed by canners who utilize the service. It is, of course, entirely optional with canners whether they use this system for the grading of their raw products.

Under the government grading system a sample of every delivery is graded. For example, with tomatoes the sample is divided into U. S. 1's, 2's and culls. Varying price differentials for 1's and 2's are set up in the canner's contract with the grower. Nothing is paid for culls and many contracts set a limit on percentage of culls. If this is exceeded the delivery may be rejected.

Numerous studies, especially with tomatoes, have shown that most tomatoes that fall into the cull classification are culls either because

they are over-ripe or under-ripe. The percentage of culls may therefore be reduced through better methods of picking. The principle set up by the system of grade buying is that the crop which is worth most to the canner shall return most to the grower. Many canners feel that the method has helped to improve the quality of the raw product delivered and has been useful in getting growers to improve production methods all along the line.

Statistical Division

The Statistical Division since the first of June has carried through the following work: Pack statistics on asparagus, citrus fruits, and green peas have been assembled, tabulated and issued in summary form. The statistics of stocks of canned corn, red pitted cherries, beets, peas, lima beans, snap beans, tomatoes, and apples have been collected and reports issued according to schedule. The statistics of planted acreage of peas, corn, and tomatoes were assembled and reported in both tabular and illustrated map form.

During this period statistics also have been collected and reports issued weekly on the shipments of fresh vegetables competing with canned, temperature and rainfall data for principal canning regions, and current crop conditions of peas, corn, and tomatoes. These reports were issued in the INFORMATION LETTER.

When the Code Authority of the canning industry discontinued operation, among some of the unfinished work of that body was the development of a cost accounting system for the canning industry. The Statistical Division has been preparing material in anticipation of the possibility of the continuation of this work on cost accounting.

In addition to the regular service work, the Statistical Division has developed to some extent the research phase of its activities. Two or three research projects have been set up, one of which has been developed to the point of collecting data and starting analysis; this project covers the relation between canner, grower, consumer, and labor. Some preliminary work has been done in collecting statistics on prices and income per acre of certain canning crops and other crops competing with canning crops.

Home Economics Division

In the work of the Home Economics Division, Miss Atwater is devoting her activities chiefly to contacts with professional groups such as teachers, home economists, dietitians and nurses, while Miss Black's work is chiefly with women's clubs, consumer groups and similar organizations. They cooperate in the preparation of literature for use in these contacts and in the preparation of material desired by newspapers and other writers for use in articles they contribute to the press. An effort has been made to establish the Association as

a source of authentic information on the canning industry and its products, which effort has been greatly facilitated by the reputation that the Association's laboratories have built up for the character and integrity of its scientific research.

As reported to the Board at its meeting last May, Miss Atwater and Miss Black were engaged during the first part of the year chiefly in field work, during the progress of which they covered a wide geographical area and devoted much of their time to a discussion of the labeling question. This field work brought them into contact with almost every type of professional and consumer organization, and the Division plans to continue the relations thus established by renewed visits and by the distribution to these organizations of literature on the subjects in which they showed greatest interest.

From the month of June onward Miss Atwater and Miss Black turned their attention to the preparation of literature for which they found greatest need in their work. Thus far five different publications have been issued, including two letter sheets of information, a pamphlet on community meals, and leaflets on canned tomatoes and canned peas. A third on canned corn has also been prepared and is nearly ready for distribution.

The first letter sheet of information bore the title "Canned Food Facts," and it resulted from a suggestion made by a dietitian engaged in relief work in Philadelphia who found some resistance to the use of canned foods among foreign clients. The second sheet was designed for use among physicians and resulted from a suggestion made by a nutrition director of the New York City Emergency Relief Agency. Both of these pieces of literature have already received a wide distribution and canners themselves have ordered 10,000 copies for use with their trade. Miss Atwater, who spent her vacation in London in September, found that the material for circulation among physicians has been reprinted by a company in that country, which plans to circularize members of the British Medical Association.

The community meals pamphlet was prepared in response to requests coming from church organizations and others for menus and recipes that could be used in the preparation of luncheons and dinners served by these organizations for church societies, Rotary and Kiwanis clubs, and the like. There has already been a very satisfactory response in the way of requests for the publication.

During the first nine months of the year the Home Economics Division has sent out over 100,000 publications, a large number of which were in response to individual requests.

Additional publications tentatively planned or already in course of preparation include letter sheets, similar to those already issued but containing information especially appropriate for distribution to

extension workers, dietitians, emergency relief workers, 4-H clubs and other groups; leaflets furnishing menus and recipes for special days, such as Thanksgiving, Christmas, Washington's Birthday, etc.; and a bibliography of publications on the industry and its products for use by teachers, this likewise to give condensed data on the principles of canning, development and geographical distribution of the industry, nutritive value of canned foods, etc.

Miss Black has undertaken a service to food editors of newspapers who have expressed a desire for information that they can incorporate in their food pages, material that has a reader interest with housewives. After a preliminary exchange of correspondence with a small group of food editors, a service was started supplying such material to a list of 126 newspapers, mostly metropolitan. The material sent to each of these papers is exclusive to that paper and is not duplicated in articles sent to other papers in the same city. It is now planned to extend this service to a larger group, ultimately providing for the distribution of about six different releases each week.

It has been found that a considerable amount of this material is of use to newspapers which have radio stations. The purpose in the work is not to exploit either the Home Economics Division or the Association, but to give the writers and broadcasters authentic and interesting information which they are at liberty to use in whatever manner they may choose.

To assist both Miss Atwater and Miss Black in meeting requests that come to them for such material, the Home Economics Division desires that canners supply them with information on any products, new uses of their products, or other facts that would prove of interest both to writers on food topics and their readers.

Plans of the Division contemplate the preparation of material or articles for a considerable number of magazine publications. Miss Black has been requested to prepare an appropriate article for the Camp Magazine, as a result of work that has been undertaken with the organization of summer camp directors. Miss Atwater has been asked to prepare an article of general information about canned food for the Country Gentleman.

Both Miss Atwater and Miss Black have had a number of opportunities to speak over the radio in connection with their visits to various organizations and their appearance on programs of associations whose activities are related to the food field.

For the remainder of the year the Home Economics Division plans to continue its field work with professional and other groups, which will take them both to areas they have not previously visited, as well as to districts already covered, where it will be advantageous to follow up the work done during the earlier part of the year.

Information Division

Since the meeting of the Board in May the Association has continued its policy of informing its members, and the industry as a whole, concerning developments of interest to them. Following the adjournment of Congress in August a bulletin was issued giving a review of the legislation enacted that is of particular interest to the industry. Current developments, not only in Congress but also in the various government departments and agencies, have been reported regularly in the Information Letter.

Because there is available from sources in Washington so much information, both concerning the government's programs, plans, regulations, etc., and in the way of statistical data, it has been found advisable to increase the scope of the Information Letter. In addition, the work of the Association is developing information that it is advantageous to report promptly to members, such as the data assembled by the Statistical Division, events in the home economics field, new publications on canners' crops, and problems connected with canning operations.

Plans are being made to change the Information Letter to a larger size page so as to provide more space at not greatly increased cost, and to facilitate the make-up of the publication. The Letter will continue to be mailed by first-class postage so as to reach all members promptly. At the close of the year an index of the Letter for the entire year will be prepared and sent to all members, many of whom find it helpful to keep permanent files of the publication.

Fire Protection

The matter of better fire protection for the property, records, etc., of the Washington office has been under consideration by a special committee for several months. Surveys of the building have been made by the committee, representatives of insurance companies and others, as a result of which various recommendations are now receiving the committee's careful study.

In the meantime some of the recommendations which do not involve a considerable expense have been carried out. These include arrangements for the prompt removal and destruction of waste paper and other inflammable refuse; the storage of alcohol and ether used by the laboratory in a fireproof vault; the placing of additional fire extinguishers at various points throughout the building; the inspection of the building daily after the regular office hours; and the removal of a considerable part of the valuable permanent records to fireproof vaults.

Plans are being considered for additions to the fireproof storage facilities by making the unused elevator shaft into practically fireproof filing spaces.

"Consumers' Cabinet" Named

The Director of the Consumers' Division of the N. R. A., the organization and program of which have been referred to in previous issues of the *INFORMATION LETTER*, has appointed what is termed a "Consumers' Cabinet" to act in an advisory capacity to the Director. The Consumers' Cabinet is made up of the following members:

Mrs. Emily Newell Blair, of Missouri, chairman of the old N. R. A. Consumers' Advisory Board, chairman.

Michael M. Davis, of Chicago, medical administrator and director of the Julius Rosenwald Foundation's medical activities.

Leon Henderson, economist, of Washington, who recently retired as director of N. R. A.'s Research and Planning Division.

Calvin B. Hoover, of North Carolina, professor of economics at Duke University who was formerly consumers' counsel of the Agricultural Adjustment Administration.

Robert S. Lynd, of New York, professor of sociology at Columbia University and author of "Middletown."

Stacey May, of New York, economist and assistant director of the Rockefeller Foundation in charge of educational work.

Miss Helen Wright, of Chicago, expert on consumers' problems and member of the economics faculty at the University of Chicago.

The first issue of "The Consumer," a new publication of the Consumers' Division, appeared on October 15th. It announced that the publication will print the character of information which appeared in "Consumer Notes," formerly published by the National Emergency Council. "In addition, however, it will have a broader scope and deal not only with the work of the Consumers' Division but of other governmental departments and will embrace comment on public policy as it has a bearing on the consuming public. In short, it will attempt to cover the entire consumers' front and to inform, not to propagandize."

Red Pitted Cherry Pack

The pack of red pitted cherries as compiled by the Statistical Division, in 1935 was 2,562,683 cases, as compared with a pack of 1,855,045 cases in 1934. The following table showing the pack in 1935 by states and size of container is based on reports received from all but two canners, whose packs have been estimated and included in the total:

State	No. 2	No. 10	No. 303	Misc.	Total
New York and Pennsylvania..	351,310	235,564	25,977	7,257	620,108
Michigan, Wisconsin, and Ohio	908,847	801,702	...	7,823	1,718,372
Western ^a	26,973	100,102	...	7,128	224,203
Total	1,287,130	1,227,368	25,977	22,208	2,562,683

^a Includes Washington, Oregon, Colorado, Utah, and Nebraska.

State Association Convention Dates

The dates of the annual conventions of the Pennsylvania Canners Association and the Iowa-Nebraska Canners Association have been announced. The Pennsylvania canners will meet at the Yorktowne Hotel, York, Pennsylvania, on December 17 and 18. The Iowa-Nebraska canners will meet at the Hotel Fort Des Moines, Des Moines Iowa, on December 3 and 4. Following is a list of the state conventions whose meeting dates have thus far been announced:

Association of New York State Canners, December 12 and 13, Buffalo.
 Association of Pacific Fisheries, November 6, 7 and 8, Del Monte, Calif.
 Eastern Shore of Virginia Packers Association, January 2, 1936, Cape Charles.
 Florida Grapefruit Canners Association, Annual Fall Meeting, October 8, Tampa.
 Indiana Canners Association, November 21 and 22, Indianapolis.
 Ohio Canners Association, December 10 and 11.
 Wisconsin Canners Association, November 4, 5 and 6, Milwaukee.
 Pennsylvania Canners Association, December 17 and 18, York, Pa.
 Iowa-Nebraska Canners Association, December 3 and 4, Des Moines, Iowa.

Leaflets Mailed to Members

In a recent issue it was announced that copies of the new leaflet on Canned Tomatoes and Tomato Products would be mailed to all members. Later it was found that the Association's new leaflet on Canned Peas would soon be available, and the mailing of the tomato leaflet was delayed so that the two could go out together. The leaflets have now been sent to all members.

The plans of the Home Economics Division also provide for the issuance of a leaflet on canned corn, which is now in the hands of the printer. These three leaflets on staple products are designed to replace the Association's pamphlets on corn, peas, and tomatoes, many thousands of which have been distributed in recent years.

Frozen and Preserved Fruits in Cold Storage

The following table shows the holdings of fruit in cold storage reported by the Bureau of Agricultural Economics as of October 1st, also a comparison with last year and with a five-year average:

	Oct. 1, 1935	Oct. 1, 1934	Five-year average
Apples:			
Barrels	316,000	209,000	354,000
Boxes	3,064,000	8,279,000	3,520,000
Baskets	3,111,000	3,370,000	2,515,000
Pears:			
Boxes	2,253,000	1,914,000	2,022,000
Baskets	236,000	233,000	334,000
Frozen and preserved fruits (lbs.)	85,864,000	71,134,000	81,584,000

Fruit and Vegetable Market CompetitionCARLOT SHIPMENTS AS REPORTED BY THE BUREAU OF AGRICULTURAL ECONOMICS,
DEPARTMENT OF AGRICULTURE

Commodity	Week ending Oct. 12		Week ending Oct. 5		Total for season through Oct. 12	
	1934	1935	1935		1934	1935
Vegetables:						
Beans, snap and lima.....	82	27	17		12,584	9,550
Tomatoes	458	488	392		23,313	21,481
Green peas	95	132	123		6,300	6,922
Spinach	10	14	19		7,782	5,538
All other vegetables:						
Domestic, competing directly...	3,472	3,509	3,218		117,574	119,225
Imports, competing indirectly..	38	54	23		180	181
Fruits:						
Citrus, domestic	1,608	1,702	1,622		127,225	148,342
Imports	36	4	38		493	490
Others, domestic	5,780	4,105	4,155		73,219	47,714

Tomato Sauce Production in Italy

Production of tomato sauce in Italy this year will be about 30 to 35 per cent greater than last year as a result of expected government purchases, according to information reported to the American consul at Naples. Prices of tomatoes are higher than a year ago.

The market is reported active, with a good demand from the United States and from buyers in the northern Italian provinces. Government orders for tomato paste and double concentrate are stated to be heavy.

During August shipments of canned peeled tomatoes and tomato sauce to the United States were about 87 per cent greater than in July. The August shipments were much less than during the corresponding 1934 period.

CONTENTS

	Page		Page
Meeting of Administrative Council	4681	"Consumers' Cabinet" named.....	4702
Reports to Administrative Council		Red pitted cherry pack.....	4702
on Association work.....	4684	State association convention dates.	4703
Consumer Complaint Service..	4684	Leaflets mailed to members.....	4703
Research Laboratories	4686	Frozen and preserved fruits in cold	
Raw Products Bureau.....	4691	storage	4703
Statistical Division	4698	Fruit and vegetable market competi-	
Home Economics Division....	4698	tion	4704
Information Division	4701	Tomato sauce production in Italy..	4704
Fire Protection	4701		